

Infrastructure Component Assessment Using the Condition Index System: Literature Review and Discussion

Abstract

Recent requirements in component management of building systems have focused on the requirement for improving methods and metric tools to support component condition assessment and appropriate decisions for infrastructure owned facilities. Although engineers and researchers have focused on developing methodologies for component assessment in recent years but there is not enough attention dedicate to facilities and components that have been constructed. This paper is a literature study of scientific papers within the topic of component condition index system (CCIS) in the period 1976 to 2009. Infrastructure component condition index had existed for some 40 years. The purpose of this paper is to provide an overview of CCIS to identify the suitable method for component condition assessment during its service life. This paper finds that the focus of CCIS, surveyed in several aspects during the 40 years that have been investigated, from technology to measurement and from assessment function to component maintenance as an integrated part of the infrastructure component management. This study offers help to researchers in understanding the selection of an appropriate method for component condition assessment in building and non-building systems.